

*NuTRoNS-2: 2<sup>nd</sup> International Training Course on  
Environmental Radioactivity with Nucleonica, Monaco,  
14-16 Nov. 2011*

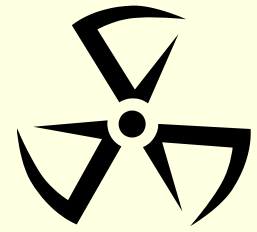
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Institute of Public Health  
of the Republic of Macedonia

*M. Sc. Snežana Dimovska*

# Institute of Public Health

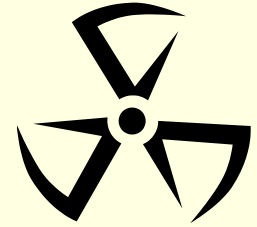
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- ☐ Ionizing Radiation Laboratory
- ☐ Laboratory of Radioecology

# Laboratory of Radioecology

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- ❑ Authorized by the Law on Radiation Protection and Safety for the national monitoring of the radioactive contamination of the environment
- ❑ Accredited according to ISO 17025

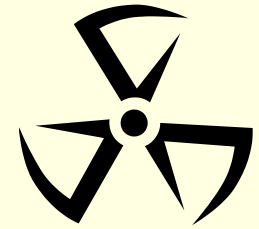


# Measurement techniques

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- ☐ Gross  $\alpha/\beta$  measurements
- ☐ Radiochemical separation and measurement of  $^{90}\text{Sr}$
- ☐ Gamma spectrometry
- ☐ Radon measurements (passive and active method)
- ☐ Gamma dose rate measurements

# Gross alpha/beta measurements



## ❑ Instrument:

Low background multiple detector counting system for low alpha/beta activities, Eurisys Mesures



# Gamma spectrometry

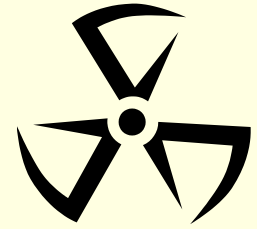


## ❑ Instrument:

p-type HPGe detectors with relative efficiency of 25% and resolution of 1.79 keV at 1.33 MeV, Canberra Packard



# Radon measurements

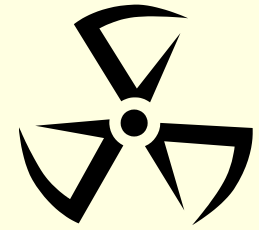


## □ Instruments:

- Active radon/thoron system, Sarad
- CR-39 solid state nuclear tracks detectors for indoor radon and thoron measurement, Radosys



# Gamma dose rate measuring system

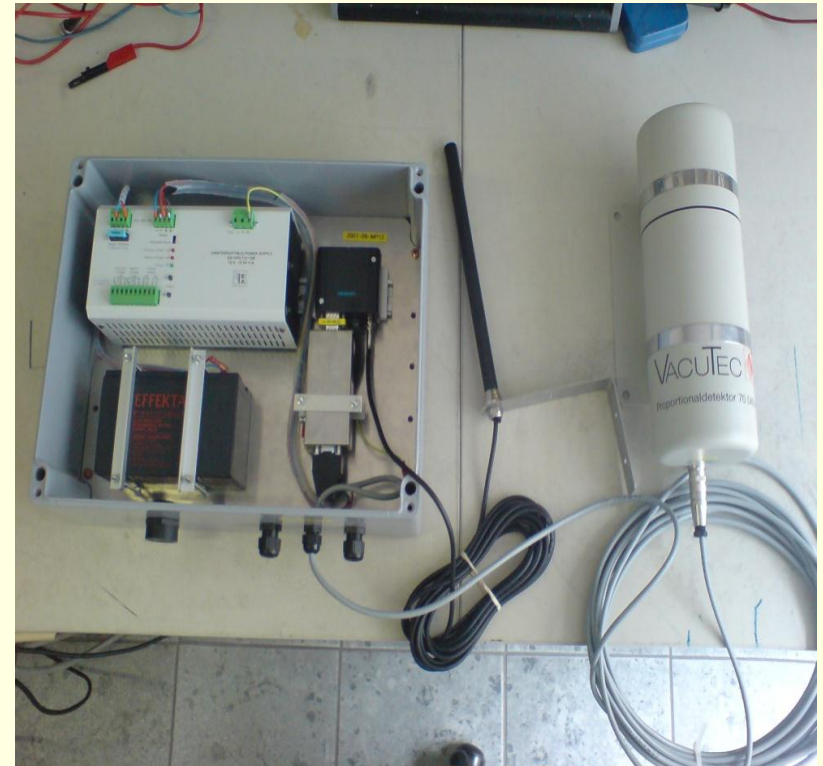


## ❑ Data center:

- PC with a visualisation software MEVIS
- GSM modem connected to PC via a COM/Serial Port

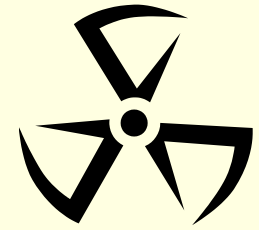
## ❑ Measuring units 12):

- 12 V lead battery
- GSM Modem MC35i+SIM Card
- Radiation Detector 70045A





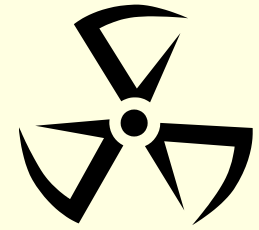




# Monitoring program samples

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- ☐ Drinking, surface and underground waters
- ☐ Atmospheric precipitations
- ☐ Aerosols
- ☐ Food
- ☐ Cattle food
- ☐ Soil



# Export/import samples

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- ☐ Mineral waters
- ☐ Food, especially mushrooms and other forest fruits
- ☐ Items for general use (tobacco and its products)
- ☐ Building materials (cement, gypsum, metals, sand, marble, granite ...)
- ☐ Scrap metals

# Annual report

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- ☐ Contains the results of all performed analyses, with comments.
- ☐ Requested by the Radiation Safety Directorate and the Ministry of Health.
- ☐ Database since 1960.



**Thank you for your attention!**

